

REMARKS

Claims 1-17 are pending in this application. Claims 16 and 17 have been added. No new matter has been added by way of these new claims because each claim is supported by the present specification. New claim 16 is supported by the present specification at page 6, lines 17-19. New claim 17 has support at page 6, lines 22-24. Entry of these new claims is respectfully requested.

Based upon the above considerations, entry of the present amendment is respectfully requested.

In view of the following remarks, Applicants respectfully request that the Examiner withdraw all rejections and the objection, and to allow the currently pending claims.

Issues Under 35 U.S.C. § 132

The Examiner has objected to the Amendment filed October 25, 2001, because it allegedly introduces new matter. The Examiner specifically cites the amendments at pages 5, 10, 18 and 20 (Office Action at page 2). Applicants respectfully traverse this objection.

The amendment to page 5, line 24, is fully supported by the PCT priority application. This amendment is made to correct an error made in the English translation of the PCT Application, WO 00/08941. Attached hereto is a certified English translation of WO 00/08941, submitted as evidence of support for this amendment.

The amendment to page 10, line 23, of the specification corrects a readily apparent typographical error with the change of "62" to "64". The specification (unamended) at page 10, lines 21-24 recite, "In case where the chemical leavening agents are spread on both faces of 32 fat layers, for example, 62 void layers are formed." (*emphasis added*). The sentence in question discusses spreading agents onto both sides of a specific number of layers (32). Therefore, the second number must be double the number of layers, i.e., 64. Correction of a readily apparent error in a specification is not the addition of new matter. *In re Oda*, 170 USPQ 268 (CCPA 1971). In addition, Applicants note that this disclosure of "64" is even supported by the "64" at page 5, line 20, of the present specification.

Similar errors are present at pages 18 and 20, for which amendments were made. These errors are typographical in nature because the original numbers were improperly translated. In view of the definitions of the numerical ranges, these corrections add no new matter.

As such, the amendments in question in no way add new matter to the specification, and withdrawal of the objection and entry of the amendments are respectfully requested.

Issues Under 35 U.S.C. § 112, Second Paragraph

The Examiner has rejected claims 12-15 under 35 U.S.C. § 112, second paragraph, as being indefinite due to the phrase "high temperature and in a short period of time" in claims 12 and 14. Applicants respectfully traverse.

The fact that claim language, including terms of degree, may not be precise, does not automatically render the claim indefinite under 35 U.S.C. § 112, second paragraph. See *Seattle Box Co. v. Industrial Crating & Packing, Inc.*, 221 USPQ 568, 573-74 (Fed. Cir. 1984) (court explaining that the specification must be reviewed as to providing some standard for measuring that degree). The issue for terms of degree is whether or not one having ordinary skill in the art can understand what is being claimed by the terms "high" and "short" in light of the specification.

Applicants submit that one having ordinary skill in the art can and will understand what is being claimed in light of the specification. In the "Background Art" section of the written description, Applicants discuss conventional products and methods of preparing frozen dough. One such product is discussed to describe how the frozen pie dough product is baked in an oven at "a high temperature in a short time" (see page 1, bottom paragraph). One skilled in the art would understand this disclosure. Applicants also discuss a conventional method of using a frozen dough product that includes baking at "a low temperature over a long period of time" in

order to thaw the frozen dough product (see page 2, lines 6-9, 12-13, 14-16). This disclosure is then followed by Applicants' disclosure of the present invention, including how to use the presently claimed frozen pie dough (i.e., using a jet oven or a convection oven at a high temperature and in a short period of time as disclosed, for example, at page 17, lines 6-9). Thus, one having ordinary skill in the art would be able to compare the disclosed conventional methods and products with the presently claimed methods and understand what is being claimed.

Further, Applicants have provided ample Examples that demonstrate the appropriate temperatures and periods of time that give a pie product having uniform rising as a whole, a layered texture, favorable color, and a crispy texture as presently claimed (i.e., Example 1 at page 22, lines 1-2; Example 2 at page 22, lines 24-25; etc.). Thus, the phrase "high temperature and in a short period of time" is definite to one having ordinary skill in the art.

Applicants submit that the M.P.E.P. lists examples of claim language that has been held indefinite by various courts. However, none of that claim language that has been deemed indefinite is being claimed (i.e., "about", "similar", "type"). In fact, terms such as "low" have been held to be definite to one having ordinary skill in the art. See *ZMI Corp. v. Cardiac Resuscitator*, 2 USPQ2d 1985, 1989 (D. Ore. 1987), *rev'd in part, vacated in part and remanded*, 6 USPQ2d

1557 (Fed. Cir. 1988). The ZMI Court even explained how the claim term of "low" is not rendered indefinite:

The use of terms like "constant" and "low" does not render a patent indefinite unless a person of ordinary skill in the art would not be able to determine from the claims what would be infringing and what would not be infringing. In the patent in suit any vagueness created by the use of non-numerical terms is cured by the character of the invention. A person of ordinary skill in the art, understanding the claims, would be able to determine that the term "low" current density refers to current density low enough to create a tolerable device. *Id.*, USPQ2d at 1989.

In applying case law such as *ZMI Corp.*, the terms of "high" and "short" are not indefinite because the specification provides standards for measuring these terms. See *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 1 USPQ2d 1081 (Fed. Cir. 1986) ("The patent law does not require that all possible lengths corresponding to the spaces in hundreds of different automobiles be listed in the patent, let alone that they be listed in the claims" at 1088). Thus, based on the adequacy of the specification and on how one having ordinary skill in the art would understand what is being claimed, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

Issues Under 35 U.S.C. § 103(a)

The Examiner has rejected claims 1-15 under 35 U.S.C. § 103(a) as being unpatentable over *Yong et al.* (U.S. Patent 4,381,315; hereinafter *Yong '315*). Applicants respectfully traverse.

Present Invention and Its Advantages

It is well known in the art that frozen pie products are manufactured by wrapping a roll-in fat in a dough, then folding the dough to give a pie dough. This folding allows alternating layers of dough and fat. Upon baking the frozen dough in an oven at a relatively high temperature, however, the outside parts of the dough are baked much faster than the inside. Therefore, because of inconsistent baking texture and undesirable taste, it is a conventional practice to either first thaw the frozen dough before proceeding with the baking step, or to bake at a low temperature over a longer period of time.

In contrast to these conventional methods and products, a frozen pie product that can be placed directly into a high-power oven for a relatively short period of time and still achieve a final product having a crispy texture and a favorable layered structure, has been produced. The present invention further achieves novel processes for producing the frozen pie dough and for a pie incorporating the frozen pie dough.

The present invention accomplishes such a desirable product by using a combination of chemical leavening agents not conventionally used in pie dough. Specifically, a combination of a quick action type chemical leavening agent and a delayed action type chemical leavening agent are used to result in the claimed product and processes. This combination generates voids between or among the dough and/or fat

layers, while a chemical leavening agent (i.e., delayed action type) may remain unreacted prior to baking.

However, no references teach, disclose or suggest using the two types of chemical leavening agents as according to the present invention and the present claims. This is especially true considering that no previous frozen pie dough could be baked at such a high temperature for a short period of time and attain such a desirable final product as the presently claimed invention. These differences will be discussed in more detail below.

Distinctions Between the Present Invention and Yong '315

As discussed above, the present invention is directed to a product of a frozen pie dough to be stored in a frozen state which can be directly baked at a high temperature and in a short period of time. These are distinctive features because conventional methods of baking frozen pie products involve either previous thawing of the frozen product or baking the frozen product at a low temperature for long periods of time. The claimed product results in a pie with a stable and well-risen state, a layered texture, and a crispy texture. However, the Yong '315 reference fails to disclose or suggest using the claimed frozen pie dough or a process of making such frozen pie dough or pie. This is not surprising since this reference does not relate to the same problem solved by the presently claimed product: a frozen pie dough comprising a combination of a quick action type and

a delayed action type chemical leavening agents, wherein such combination allows the frozen pie dough to be baked directly into an oven at a relatively high temperature and for a short period of time.

(A) *Yong '315 Fails to Teach All Claim Limitations and Provide the Requisite Motivation and Reasonable Expectation of Success*

The Examiner states that Yong '315 discloses certain features of the present invention. However, U.S. case law squarely holds that a proper obviousness inquiry requires consideration of three factors: (1) the prior art reference (or references when combined) must teach or suggest all the claim limitations; (2) whether or not the prior art would have taught, motivated, or suggested to those of ordinary skill in the art that they should make the claimed invention (or practice the invention in case of a claimed method or process); and (3) whether the prior would have revealed that in making the claimed invention (or practicing the invention in case of a claimed method or process), there would have been a reasonable expectation of success.

See, e.g., *In re Vaeck*, 947 F.2d, 488, 493 (Fed. Cir. 1991); *In re Kotzab*, 55 USPQ2d 1313, 1316-17 (Fed. Cir. 2000); *In re Fine*, 5 USPQ2d 1596 (Fed. Cir. 1988). In other words, the prior art references must disclose or teach all claim limitations, the references themselves must state the motivation or suggestion to combine the references, and one having ordinary skill in the art must reasonably expect to be successful in using these references.

In applying case law such as *In re Vaeck* and *In re Kotzab*, Yong '315 cannot be a basis for a rejection under 35 U.S.C. § 103(a). This is because Yong '315 is directed refrigerated dough for a baked loaf of bread, or other items having bread-like texture (for example, see Col. 1, lines 24-27). There is no disclosure or teaching of a "frozen pie dough to be stored in a frozen state" as presently claimed. In other words, Yong '315 fails to disclose all features of the present invention.

To account for the lack of disclosure present in Yong '315, the Examiner states that "it is well known that a product is kept for a long period of time in frozen condition than in refrigerated condition" (see Office Action, page 3). However, such a general conclusion is not a reason why one having ordinary skill in the art would be motivated, or reasonably expect to be successful, in using the Yong '315 reference. Further, such a general conclusion dismisses the key features of the invention.

No proper motivation has been shown because the USPTO has failed to identify the specific principle known to one of ordinary skill in the art that suggests the claimed methods or products. See *In re Sang Su Lee*, 61 USPQ2d 1430, 1434 (CAFC 2002) (the Board must identify specifically the principles, known to one of ordinary skill, that suggest the claimed combination) (citing *In re Rouffet*, 47 USPQ2d 1453, 1459 (Fed. Cir. 1998)). A general conclusion that a bread-like product can be frozen does not equal motivation or

reasonable expectation of success to justify modifying Yong '315 so as to achieve a pie product having uniform rising, a layered texture, favorable color, and a crispy texture.

Further, placing the bread-like product of Yong '315 from a frozen state directly into an oven at a high temperature and for a short period of time does not give the same pie dough product as presently claimed. In other words, the technology of Yong '315 by freezing the disclosed refrigerated dough would not achieve the present invention. The fact that Applicants are claiming that a frozen pie dough is important because there are chemical differences between Yong '315 and the present invention.

For example, Yong '315 refrigerates the bread dough, allowing its leavening agents to continuously react while being stored. In contrast, the pie dough of the present invention is frozen, allowing some of the leavening agents to remain unreacted prior to baking. Yong '315 does not even teach or suggest freezing the dough in order to keep a part of the chemical leavening agent unreacted (*i.e.*, delayed action type) and where the other part has reacted to form voids (*i.e.*, quick action type). The Examiner states that Yong '315 discloses the same ingredients as presently claimed (page 3 of the Office Action), yet freezing is completely missing from the cited reference (a "frozen pie dough" is presently claimed). The Examiner has supplied the missing disclosure of Yong '315 with a general conclusion with regard to freezing the refrigerated dough. However,

as mentioned, this conclusion does not equal the requisite motivation or reasonable expectation of success, and the technology of Yong '315 does not work.

So not only does Yong '315 lack disclosure of all claimed features (*i.e.*, a frozen pie dough to be stored in a frozen state), the resultant product of Yong '315 is chemically and structurally different from the products attained by using the claimed pie dough. In contrast to any product using the disclosure in Yong '315, the present invention results in a pie with a stable and well-risen state with a layered and crispy texture. This is because the pie dough is frozen, and can be placed directly in an oven at high heat and for a relatively shorter period of time.

The Examiner further states that "there is no standard of identity defined for the pie dough as claimed" (see Office Action, page 3). Applicants respectfully submit that there is "identity" of the presently claimed pie dough, as well as in the present method claims. The present invention uses a combination of chemical leavening agents not conventionally used in pie dough. Specifically, a combination of a quick action type chemical leavening agent and a delayed action type chemical leavening agent are used to result in the claimed product and processes. This combination generates voids between or among the dough and/or fat layers, while a chemical leavening agent (*i.e.*, delayed action type) may remain unreacted

prior to baking. This cannot be said of the Yong '315 refrigerated dough products.

As mentioned, the leavening agent of the product of Yong '315 does not remain unreacted during storage because it is refrigerated (the title of Yong '315 is "Refrigerated Dough and Method of Manufacture").

In addition, the product of Yong '315 is completely chemically and structurally different from the presently claimed pie dough in other ways. Even upon using the disclosed features of Yong '315, the present invention cannot be achieved. Applicants note that Yong '315 does not disclose or teach the voids and unreacted chemical leavening agent which are present between the dough layers and fat layers of the frozen pie dough. With reference to Yong '315, the Examiner states that "it is obvious that the dough will have voids" (see Office Action, page 3). Although Yong '315 discloses voids generally, the voids of Yong '315 are distributed whole in the bread dough, which is clear from the term "a baked product having a bread-like texture." In contrast to the refrigerated dough of Yong '315, the voids of the present invention are mainly located between the dough layers and fat layers. In the Amendment of October 25, 2001, Applicants attached a drawing comparing the voids of the present invention with those of Yong '315. Because the Examiner has dismissed Applicants' previous arguments in view of the new ground of rejection (see Office Action, page 4), Applicants again hereby submit the

attached drawing to illustrate the differences between the present invention and any product of Yong '315.

Further, although Yong '315 discloses voids, it does so in a negative manner. Specifically, Yong '315 teaches "large voids and/or unsightly brown areas within the baked crumb" at Col. 8, lines 51-55. Such a negative teaching amounts to a teaching away that voids are undesirable in the final product. However, the present invention has voids in its product because it leads to a pie product with a layered and crispy texture, even when the pie dough is baked directly from a frozen state at a high temperature and in a short period of time.

Any cited reference used for a rejection under 35 U.S.C. § 103(a) must be considered in its entirety, i.e., as a whole, including those portions that would lead away from a claimed invention. See *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). In other words, the Yong '315 reference must be read in its entirety, including the teaching away that any voids would have disadvantages when formed in the baked product. Thus, because of the negative treatment of voids that is present in the cited reference, Yong '315 teaches away from even achieving the present invention. See, e.g., *In re Vaeck*.

Further, Yong '315 mentions "refrigerated" and "bread-like" so many times, that one skilled in the art would not be motivated to modify any product of Yong '315 that would affect these characteristics (i.e., frozen; pie dough). For example,

"refrigerated" and "bread-like" are mentioned in the Col. 1 at lines 7, 8, 20, 26, 27, 28, 29, 31, 32, 35, 53 and 54. Even the Abstract discusses how the dough "is adapted for being contained in a pressurized container and adapted for storage under refrigerated conditions". The strong emphasis on refrigeration, storage, and bread-like texture is so apparent that one skilled in the art would not deviate from this teaching. To take the disclosure of refrigerated dough producing a bread-like product and modify this disclosure so that a frozen pie dough with desirable voids would be also be disclosed, is equal to hindsight reconstruction.

However, this level of hindsight is not permitted. As stated by the Federal Circuit in *Sensonics Inc. v. Aero sonic Corp.* 38 USPQ2d 1551 (Fed. Cir 1996) :

To draw on hindsight knowledge of the patented invention, when the prior art does not contain or suggest that knowledge, is to use the invention as a template for its own reconstruction -- an illogical and inappropriate process by which to determine patentability. *W.L. Gore & Assoc. v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983). The invention must be viewed not after the blueprint has been drawn by the inventor, but as it would have been perceived in the state of the art that existed at the time the invention was made. *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1138, 227 USPQ 543, 547 (Fed. Cir. 1985).

Therefore, in view of the above remarks, Yong '315 does not disclose the presently claimed invention because the cited reference fails to teach or suggest all features as presently claimed, and the reference fails to provide the requisite motivation and reasonable expectation of success as required by *In re Vaeck*, *In re Kotzab*, and

35 U.S.C. § 103(a). The mentioned reasons for the Applicants' traversal include how the refrigerated product of Yong '315 is different from the present invention, and how the product of Yong '315 cannot be baked at a high temperature in a short period of time. This is in direct contrast to the present invention. In addition, the Yong '315 reference does not disclose or teach anything frozen, and voids are even undesirable. Thus, there is no *prima facie* case of obviousness established that is based on the Yong '315 reference. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

(B) *Unexpected Results Exist*

Another reason this rejection is overcome is because of unexpected results.

The present invention achieves unexpected superior results that a frozen pie dough can be directly (i.e., without thawing) baked at a high temperature and in a short period of time, when comparing to any conventional' pie dough (i.e., see Comparative Examples in specification). The present invention also results in a pie that has a stable and well-risen state with a layered texture. This invention can be easily baked resulting in a crispy texture. Thus, based on these unexpected results, Applicants traverse this rejection.

In view of the above remarks, Applicants respectfully submit that the present claims encompass subject matter that is patentably

distinguishable from the cited reference. Specifically, the present claims are patentable over the Yong '315 reference because Yong '315 fails to disclose or teach all features of the present invention. Further, the Yong '315 reference does not provide the proper motivation and reasonable expectation of success that one of ordinary skill or art would need in order to achieve the present invention. Any modification of Yong '315 is equal to impermissible hindsight reconstruction. Accordingly, Applicants respectfully request the Examiner to withdraw all rejections and allow the currently pending claims.

A full and complete response has been made to the Office Action. Applicants respectfully request the Examiner to pass the application to issue because the present claims encompass patentable and allowable subject matter.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Eugene T. Perez (Reg. No. 48,501) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Attached hereto is a marked-up version of the changes made to the application by this Amendment.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachment: Version with Markings to Show Changes Made
Partial Translation of WO 00/08941
Drawing

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claims 16-17 have been added.